

Application No. 10/533231
Responsive to the office action dated April 15, 2009

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks.

Claims 4-7 have been canceled without prejudice.

Claim 1 has been amended to limit the wax to wax (A). Claim 1 is further amended editorially.

Claims 1, 4-5, 7, 12-13, and 15-16 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent Application Publication No. 2003/0091923) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724) and Yuasa et al. (U.S. Patent Application Publication No. 2002/0086229) (Yuasa (I)). Applicants respectfully traverse this rejection.

Claims 4-5 and 7 have been canceled.

Kobayashi discloses an electrophotographic developer containing a carrier and a polymer toner (see abstract) and that the toner contains natural wax, such as carnauba wax, and olefin waxes, such as polypropylene and polyethylene (see page 4, para. [0057]). Kobayashi, however, fails to disclose that the toner contains a synthetic wax with a DSC endothermic peak temperature of 80 to 120°C and an acid value of 5 to 80 mgKOH/g, wherein the synthetic wax is a reacted compound of at least a C₄ to C₃₀ long chain alkyl alcohol, an unsaturated polycarboxylic acid or anhydride thereof, and an unsaturated hydrocarbon wax as claim 1 recites.

Nakamura discloses a toner including propylene wax (see page 9, para. [0139]) but also fails to disclose a synthetic wax (A) with a DSC endothermic peak temperature of 80 to 120°C and an acid value of 5 to 80 mgKOH/g, wherein the synthetic wax is a reacted compound of at least a C₄ to C₃₀ long chain alkyl alcohol, an unsaturated polycarboxylic acid or anhydride thereof, and an unsaturated hydrocarbon wax as claim 1 recites. Thus, Nakamura does not remedy the deficiencies of Kobayashi.

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Yuasa (I) discloses a toner that includes a polyolefin wax that is graft modified with unsaturated carboxylic acid. (see paras. [0024] and [0026]). The reference further discloses that the preferable ester based waxes are meadowfoam oil derivatives and jojoba oil derivatives (see para. [0030]). Even if the derivatives thereof were considered to be synthetic waxes, which Applicants do not concede, Yuasa (I) fails to disclose a particular synthetic wax that is a reacted compound of C₄ to C₃₀ long chain alkyl alcohol, an unsaturated polycarboxylic acid or anhydride thereof, and an unsaturated hydrocarbon wax as claim 1 requires. Thus, Yuasa (I) also does not remedy the deficiencies of Kobayashi and Nakamura.

Accordingly, claim 1 and claims 12-13 and 15-16, which depend from claim 1, are distinguished from Kobayashi in view of Nakamura and Yuasa (I), and this rejection should be withdrawn.

Claims 2 and 3 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent Application Publication No. 2003/0091923) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724) and Yuasa et al. (U.S. Patent Application Publication No. 2002/0086229) (Yuasa (I)) as applied above, and further in view of Mizoe et al. (U.S. Patent Application Publication No. 2003/0152856). Applicants respectfully traverse this rejection.

Claim 2 and 3, which ultimately depend from claim 1, are distinguished from Kobayashi in view of Nakamura and Yuasa (I) for at least the same reasons as discussed for claim 1 above.

Mizoe discloses a toner including toner particles containing a binder resin, a colorant, and fine particles (see abstract). Mizoe further discloses that the toner may contain a wax and provides a long list of waxes (see para. [0192] on page 15). Mizoe, however, fails to disclose a synthetic wax with a DSC endothermic peak temperature of 80 to 120°C and an acid value of 5 to 80 mgKOH/g, wherein the synthetic wax is a reacted compound of at least a C₄ to C₃₀ long chain alkyl alcohol, an unsaturated polycarboxylic acid or anhydride thereof, and an unsaturated hydrocarbon wax as claim 1 recites. Thus, Mizoe does not remedy the deficiencies of Kobayashi, Nakamura, and

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Yuasa (I), and claims 2 and 3, which ultimately depend from claim 1, are distinguished from Kobayashi in view of Nakamura and Yuasa (I), and further in view of Mizoe. Accordingly, this rejection should be withdrawn.

Claims 6 and 8-10 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent Application Publication No. 2003/0091923) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724) and Yuasa et al. (U.S. Patent Application Publication No. 2002/0086229) (Yuasa (I)) as applied above, and further in view of Shimizu et al. (U.S. Patent No. 6,117,607). Applicants respectfully traverse this rejection.

Claim 6 has been canceled. Claims 8-10, which depend from claim 1, are distinguished from Kobayashi in view of Nakamura and Yuasa (I) for at least the same reasons as discussed for claim 1 above.

Shimizu is directed to one component developer and discloses a toner containing chargeable fine particles (see coln. 2, lines 55-67) and merely discloses natural or synthetic waxes as additives (see coln. 8, lines 49-52). Shimizu, however, fails to disclose a particular synthetic wax with a DSC endothermic peak temperature of 80 to 120°C and an acid value of 5 to 80 mgKOH/g, wherein the synthetic wax is a reacted compound of a C₄ to C₃₀ long chain alkyl alcohol, an unsaturated polycarboxylic acid or anhydride thereof, and an unsaturated hydrocarbon wax as claim 1 recites. Thus, Shimizu does not remedy the deficiencies of Kobayashi, Nakamura, and Yuasa (I). Accordingly, claims 8-10 are distinguished from Kobayashi in view of Nakamura and Yuasa (I), and further in view of Shimizu, and this rejection should be withdrawn.

Claim 18 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent Application Publication No. 2003/0091923) in view of Nakamura et al. (U.S. Patent Application Publication No. 2002/0064724) and Yuasa et al. (U.S. Patent Application Publication No. 2002/0086229) (Yuasa (I)) as applied above, and further in view of Yuasa et al. (U.S. Patent No. 6,579,653) (Yuasa II). Applicants respectfully traverse this rejection.

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Claim 18, which depends from claim 1, is distinguished from Kobayashi in view of Nakamura and Yuasa (I) for at least the same reasons as discussed for claim 1 above.

Yuasa (II) discloses a toner composition containing a specific binder resin. Yuasa (II) further discloses that the toner may include a fixing adjuvant (see abstract) and discloses a long list of materials useful for the fixing adjuvant such as paraffin wax, hydrocarbon-based waxes, etc. (see coln. 17, line 31 – coln. 18, line 27). Yuasa (II), however, fails to disclose a particular synthetic wax with a DSC endothermic peak temperature of 80 to 120°C and an acid value of 5 to 80 mgKOH/g, wherein the synthetic wax is a reacted compound of a C₄ to C₃₀ long chain alkyl alcohol, an unsaturated polycarboxylic acid or anhydride thereof, and an unsaturated hydrocarbon wax as claim 1 recites. Thus, Yuasa (II) does not remedy the deficiencies of Kobayashi, Nakamura, and Yuasa (I). Accordingly, claim 18 is distinguished from Kobayashi in view of Nakamura and Yuasa (I), and further in view of Yuasa (II), and this rejection should be withdrawn.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.



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DPM/my/jls

Respectfully submitted,

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